

Hong Kong-Zhuhai-Macao Bridge • Hong Kong Boundary Crossing Facilities

International Design Ideas Competition

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A new Journey begins here...
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Message from Ms. Eva CHENG, JP Secretary for Transport & Housing



The Hong Kong-Zhuhai-Macao Bridge (HZMB) is a project of strategic importance to Hong Kong, Macao and the Pearl River Delta (PRD) Area as a whole in terms of economic development as well as social integration. With the recent conclusion of the "Framework Agreement on Hong Kong / Guangdong Co-operation", the economic interface between Hong Kong and the PRD Area will be further enhanced. The construction of the HZMB will no doubt strengthen the transportation network between Hong Kong and the PRD Area, and also help promote regional co-operation, providing new impetus for the sustainable development, and in turn enhancing the competitiveness of the PRD region.

The Hong Kong Boundary Crossing Facilities (HKBCF) is a very important part of the Hong Kong Section of the HZMB project. To be located on an artificial island reclaimed from the open waters off the north-east of the Hong Kong International Airport, the HKBCF enjoys a favourable geographical location with close proximity to the Airport and connection to the Tuen Mun-Chek Lap Kok Link under planning. The HKBCF will not only be a clearance centre for goods and passengers, but will also develop into a strategic multi-modal transportation hub. This will be of significant importance to further enhancing the status of Hong Kong as an international transportation and aviation hub.

To make the HKBCF a new landmark for Hong Kong, the Highways Department earlier organised the "Hong Kong-Zhuhai-Macao Bridge - Hong Kong Boundary Crossing Facilities International Design Ideas Competition" with the support of other departments and local professional institutions. Professionals from various sectors (including architecture, planning, engineering) as well as members of the public from all over the world as well as Hong Kong were invited to participate in this competition to offer creative ideas and advanced environment-friendly and sustainable construction techniques for the construction, aesthetic and overall planning of the HKBCF, which will provide important references for its future detailed design. With the staunch support from various parties concerned, the competition was completed successfully.

On behalf of the Hong Kong SAR Government, I wish to thank members of various sectors of the community for the precious time and effort that they have put into the HZMB projects and this competition. I look forward to their continued support for the HZMB and the HKBCF projects, with a view to working together to create a new boundary crossing facility of an international nature for Hong Kong, and realising the goal of further integration and enhanced economic development of Hong Kong and the PRD region.

Thank-you Message from Mr. WAI Chi-sing, JP Director of Highways



"A New Journey begins here..." is the slogan of the Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities International Design Ideas Competition. The competition received over 160 entries, with over half from overseas. In addition, the superb quality of the entries for the Competition had provided lots of valuable creative ideas and incorporated environmental concepts, which will serve as valuable reference for the coming detailed design of the HKBCF superstructures. I would like to express my deepest appreciation to the unfailing support and efforts offered by the Jury Panel, Organising Committee, Technical Committee and District Council. May I also take this opportunity to thank all the participants for their active participation in the Competition and convey my warm congratulations to all the winners.

List of Award Winners

Professional Group

Award	Name	Country/Area
1st Prize	Under the Same Roof MUI Kui Chuen, Paul LEE Chiu Ming, Benny HUNG Oi Kee, Agnes	Hong Kong
2nd Prize	A Crossing beyond Boundaries CHAN Kin Kwok, Stephen NG Man Hoi, Simon WONG Chin Keung, Christopher	Hong Kong
3rd Prize	In-between Fingers, In-between Link CHAN Lam Wai, Kevin LEE Hok Man, Louis WONG Lei Man, Lawrence WANG Jerry PUN Ka Chun CHAU Kei Yun, Athena	Hong Kong
Merit	Bauhinia Garden Adham Selim	Egypt
Merit	The Channel KOSTARAS James QUE Zhenqing XIONG Xing ZHOU Shi LI Hua ZENG Yan	USA

Open Group

Award	Name	Country/Area
1st Prize	Waves CHEN Siming LIN Xincheng WU Liang ZHOU Jin HE Yuxin YANG Yimin	China
2nd Prize	Ephemeral Roof Exchange MA Tze Chung, Steven FOK Wei Yue, Wendy STRZELEC Dominik	Austria
3rd Prize	Hong Kong Signature BUIJS Nard PEEK Floris VAN DER MEER Alexander	The Netherlands
Merit	Rose Window-Sun Clock KOJUEV Vitaliy KUZNETSOVA Elena KUZNETSOV Viktor	Russia
Merit	Urban Synthesis LAM Cheuk Wang	Hong Kong

Interviews with Winners



"Under the Same Roof, creating a boundary-free crossing facility under one roof." The Professional Group 1st prize winner Paul Mui, Benny Lee and Agnes Hung have

developed a design concept emphasizing on "family". They believe that people living in Hong Kong, Zhuhai and Macao will be bond together with the HKBCF connector. The large canopy that spans across the immigration hall and extends beyond the drop off areas can bring a sense of home feeling to the visitors," Paul Mui said. He also stated that the group has tried to minimize the pillars used in supporting the main building, so that the visitors could have a broader view around BCF and the immigration process would be smoother.

The design incorporates certain green elements. Algae is planted at top of the roof, to absorb carbon dioxide and release oxygen which will then be transformed into mist, generating cooling effects for the coach parking place to help reduce air pollution.

Paul, Benny and Agnes have cooperated closely on architecture design in the past and this is already the fifth time they won an international architectural design award. "We have certain experience on large-scale design competitions, but HKBCF is the largest one and it is of course the most challenging," said Paul, Benny and Agnes excitedly. They are proud of designing a comfort BCF for the citizens living in the same motherland. They hope the design could become a famous landmark in Hong Kong.



"Improve air quality, let's build a sustainable future." Adham Selim is the merit award winner in the Open Group. He took a 16-hour flight from Egypt to

Hong Kong to accept this award. Adham commented that as Hong Kong suffers from air pollution problems, his design demonstrated a strong sense of environmental consciousness. A rainwater harvesting system is integrated into the BCF building to cool down the temperature in coach parking area and reduce vehicle emissions, which is benefited to the sustainable development of Hong Kong.



"Gentle waves rolling stretches, reflecting the spirit of harmony in Hong Kong." The Open Group 1st prize winner comes from

Guangzhou, formed by Siming Chen, Xincheng Lin, Liang Wu, Jin Zhou, Yuxin He and Yimin Yang. All six of them are students from Guangzhou University and South China University of Technology. Succinct wave design form gained the appreciation from the Jury. "HKBCF is surrounded by sea water and adjacent to a magnificent view of the greenery that greeted us. The building is defined by wave design that highlighted by the graceful curve of HKBCF. It will further illustrate the spirit of harmony in Hong Kong," Siming Chen explained.

Siming Chen said with a smile, "Simple and clear design not only underscores Chinese People's respect for nature, but also marks the richness and profoundness of Chinese cultures and values."

These six student winners are excited to take part in this design competition which gives them an opportunity to put knowledge into practice and thus broaden their horizon in the professional field. Another team member Wu Liang said, "I go abroad from time to time through Hong Kong International Airport, so I have a deep impression on BCF's surrounding environment. With "fieldwork" experience, we could yield twice the result with half the effort." However, Wu added that during the preparation, he had different opinions with his teammates. He said that the design needs to strike a balance between passenger flow, architecture structure and the environment. He made great efforts to seek consensus with his teammates.



"Building a remarkable signature for Hong Kong that the design of BCF is interwoven with the sky and the sea." Nard Buijs, Peek Floris and Van Der Meer Alexander said. The team comes from the Netherlands. They won the 3rd prize in the open group. Although they have not been to Hong Kong, their passion for architectural design persuaded them to join the competition. Buijs Nard said, "People in the West pay great attention to the developments of China and Hong Kong. This competition is an excellent opportunity for us to broaden our views. It is a big surprise to get a prize too." Buijs Nard, Peek Floris and Van Der Meer Alexander think that Hong Kong is a very unique place. Their design focuses on curve structure aiming at creating a new signature for Hong Kong, which is in harmony with the sky and the sea.

Project Manager of HZMB Hong Kong Project Management Office, Cheng Ting-ning (first left) toured around the winning entries with guests.

Prize Presentation Ceremony



The Permanent Secretary for Transport and Housing (Transport), Mr Francis Ho (centre); Director of Highways, Mr Wai Chi-sing (second left); Head Juror, Mr Richard Hawkins (second right); Sir David Akers-Jones (first right); and Project Manager of the HZMB Hong Kong Project Management Office, Highways Department, Mr Cheng Ting-ning (first left) kicked off the roving exhibitions of the HZMB - HKBCF International Design Ideas Competition.



Director of Highways, Mr Wai Chi-sing (Center) presented souvenirs to the Jurors.



Project Manager of HZMB Hong Kong Project Management Office, Cheng Ting-ning (first left) toured around the winning entries with guests.



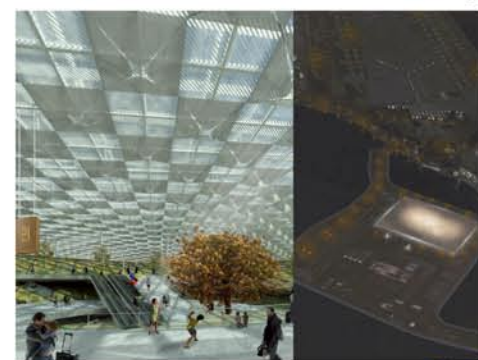
Winners from the Netherlands explained their design concept to the guests.

Winning Designs



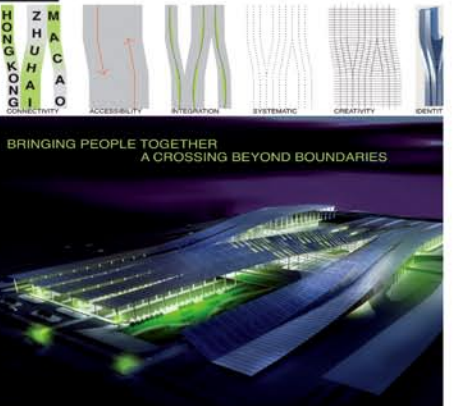
Professional Group 1st Prize: Under the Same Roof

This entry implies Macau, Hong Kong and China as a family "Under the Same Roof". Using solar energy, the algae tubes installed on roof release oxygen to drop off area in the facility to relief air pollution generated by the traffic. The multi-purposed canopy with openable shading devices is able to allow natural ventilation, that reduces "heat island" effect.



Professional Group 2nd Prize: A Crossing beyond Boundaries

This entry eliminates the circulation barriers in the building and brings people together. The Jury commented that it is an elegant design and well-balanced scheme solving many practical issues. BIPV panels on roof generates electricity that can be used in the building. The streamlined form reflects the ideology of seamless link between the 3 cities.



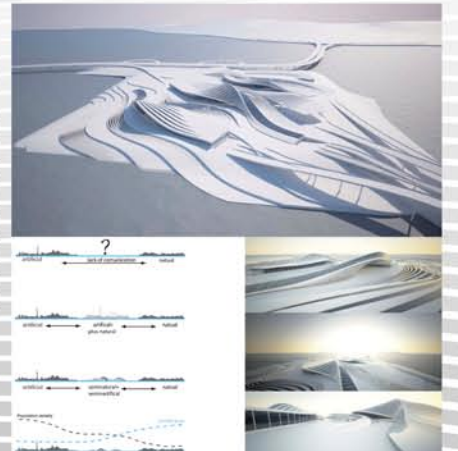
Professional Group 3rd Prize: In-between Fingers, In-between Link

Dynamic flow of footbridge interweaves the landscape and the in-bound and out-bound passageway in buildings. The Jury commented that it is the most well-developed building form that creates a perceptive symbolic meaning in the facilities and an interesting internal spatial quality. The roof is designed to allow natural lighting penetrating into the building.



Open Group 1st Prize: Waves

The undulating wavy form blends with the coastline. The vehicle clearance plaza is built underground to free up spaces for the passenger halls that creates a dynamic spatial quality in the facility. Besides, the design separates the arrival and departure halls that allows more natural sunlight and sky view to the building.



Jury Panel



▲The Jury Panel includes: (From left to right) Front row: Dr. Hitoshi ABE, Sir David AKERS-JONES, Mr. Richard HAWKINS, Dr. CHENG Hon-kwan, Prof. HE Jingtang. Second row: Mr. YUE Chi-hang, Mr. Bernard Charnwut CHAN, Dr. Ronald LU, Mr. Andy LEWIS, Mr. Ivan HO, Professional Adviser.

◀ Mr. Richard HAWKINS, Head Juror, "I was impressed by the enthusiastic response and the quality of the entries. The diversity of design approach and creativity of ideas were essential to a good result in a design competition."

◀ Prof. HE Jingtang, Director of College of Architecture & Civil Engineering, South China University of Technology, "For this type of facility, clarity in circulation for passengers and vehicles, and functional effectiveness are essential in the design."

◀ Dr. Hitoshi ABE, Professor and Chair of UCLA Department of Architecture and Urban Design, "Using large span roof structure to cover different functional areas is a symbolic gesture for landscaping the island entirely."

◀ Dr. Ronald LU, Past President of The Hong Kong Institute of Architects, "The aerial view of HKBCF is important, because it will be the first image of Hong Kong perceived by the passenger travelled by air."

▲ Mr. Bernard Charnwut CHAN, GBS, JP, Chairman of Council for Sustainable Development, "Glad to see many new sustainable feature ideas that should be further studied and implemented."

◀ Dr. CHENG Hon-kwan, GBS, JP, Past President of Hong Kong Institution of Engineers, "The buildability and cost of an iconic structure shall also be considered."

◀ Sir David AKERS-JONES, GBM, JP, Former Chief Secretary of Hong Kong, "The standard of Open Group Entries is impressive, the design must be in harmony with its surrounding environment."

◀ Dr. CHENG Hon-kwan, GBS, JP, Past President of Hong Kong Institution of Engineers, "The buildability and cost of an iconic structure shall also be considered."

Co-organisers

